Exhibit A

Declaration under 37 C.F.R. §1.132 by Dr. Timothy Maher

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS:	Pratt et al.		
ASSIGNEE:	seaCoast NeuroScience, Inc.		
SERIAL NUMBER:	10/723,626	EXAMINER:	ALSTRUM ACEVEDO, James Henry
FILING DATE:	November 26, 2003	ART UNIT:	1616
FOR:	BUOYANT POLYMER PARTICLES FOR DELIVERY OF THERAPEUTIC AGENTS TO THE CENTRAL NERVOUS SYSTEM		

Boston, Massachusetts

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION of TIMOTHY MAHER UNDER 37 C.F.R. §1.132

I, TIMOTHY MAHER, PH.D., DO HEREBY DECLARE:

1. I am a full professor of pharmacology at the Massachusetts College of Pharmacy and Health Sciences ("MCPHS") and have had 26 years of experience performing research on small animals (rats, mice, hamsters) involving neurochemical, neurobehavioral, and neuropharmacologic studies. My expertise is in stereotaxic surgery, in vivo microdialysis, neurobehavioral models of neurological diseases (including stroke, spinal cord injury, Parkinson's disease, Alzheimer's, Huntington's, and metal toxicity), as well as in analytical procedures including HPLC and enzymatic assays. I have also performed contract research under a for-profit company owned by MCPHS (Longwood Pharmacology Research, Inc) where I served as President and CEO. I hold a Ph.D. in pharmacology, and I have published over one-hundred articles in peer-reviewed scientific journals.

2. I have recently reviewed United States Patent Application number 10/723,626 ("the '626 application"), which is entitled "BUOYANT POLYMER PARTICLES FOR DELIVERY OF THERAPEUTIC AGENTS TO THE CENTRAL NERVOUS SYSTEM," and which was filed in the United States Patent and Trademark Office on November 26, 2003.

3. I understand that the '626 application has been assigned to seaCoast NeuroScience, Inc. I am not employed by seaCoast, nor do I hold stock in seaCoast at the present time. I have previously collaborated with seaCoast employees in the form of preparing research grant applications. My interests in collaborating with seaCoast are generally academic in nature - I hope to obtain grant money to support my research and research projects with seaCoast. I have not assisted seaCoast with any grant applications that are pending at this time.

4. I have been informed that during prosecution of the '626 application, original claim 3 was canceled, and that prosecution of claims 1, 2, and 4-41 is proceeding. I understand that the claims relate to polymer particles that contain a therapeutic agent and a buoyancy agent.

5. I have been informed that the examiner who is examining the '626 application at the United States Patent Office has rejected claims 1-2, 4-10, 12-31, 34-35, 37-38, and 40-41 under 35 U.S.C. §103(a) as obvious over Unites States Patent No. 5,455,044 to Kim et al. ("the Kim patent") in view of United States Patent No. 6,306,439 to Penners et al. ("the Penners patent"). I have recently reviewed the Examiner's arguments supporting this rejection as set forth in the Office Action dated June 2, 2006. I have also recently reviewed the relevant portions of the disclosures of the Kim patent and the Penners patent.

6. The Kim patent is directed primarily to treating a neurological disorder by administration to the cerebrospinal fluid (CSF) of a therapeutic agent in a dispersion system which allows the therapeutic agent to persist in the cerebro-ventricular space. The dispersion systems taught by the Kim patent comprise particles that are dispersed in a pharmaceutical buffer, and are preferably administered to the patient by injection (e.g., directly into the CSF by intralumbar puncture). As I would expect for a pharmaceutical formulation designed to be injected directly into the CSF of a patient, the Kim patent states that the materials used in the formulations are typically sterilizable, nontoxic, and biodegradable.

7. According to the teachings of the Kim patent, the density of the dispersion systems can be modified by altering the specific gravity to make the dispersion hyperbaric or hypobaric. Example materials for altering the specific gravity, as provided by the Kim patent, are iohexol, iodixanol, metrizamide, sucrose, trehalose, glucose, or other biocompatible molecules with high specific gravity.

8. The Penners patent is directed primarily to pharmaceutical formulations intended to be administered orally. The administration forms taught in the Penners patent differ from conventional oral dosage forms in that they have a relatively long gastric residence time. The Penners patent teaches that a relatively long gastric residence time may be obtained by incorporation of a gas-forming mixture. Examples of suitable gas-forming agents are set forth in column 5, lines 5-15 of the Penners patent. These are hydrogen carbonates such as sodium hydrogen carbonate, and may be used alone or in combination with acids.

9. The hydrogen carbonates described in the Penners patent decompose upon contact with water or gastric fluid. The products resulting from such decomposition are carbon dioxide (CO_2) and hydroxide ion (OH^-). This decomposition reaction of hydrogen carbonates is widely

known to practitioners in medicinal chemistry and synthetic chemistry. Hydroxide ion is a strongly basic substance.

10. The formulations described in the Penners patent are designed and intended for use in the gastrointestinal (GI) tract. The GI tract is subject to a wide variety of external stimuli, most notably the solids and liquids encountered in the course of normal metabolic regulation (e.g., the processes of eating and drinking). Accordingly, the GI tract is designed to tolerate wide variations in pH. Furthermore, it is common practice to administer to the GI tract compositions comprising a hydrogen carbonate (e.g., antacid medications such as common baking soda); the hydroxide ions generated by the decomposition reaction of such compositions is often beneficial for regulating the pH of the GI tract.

11. In contrast to the GI tract, the central nervous system (CNS) of a patient is quite sensitive to external stimuli. Under normal circumstances, the CNS contains CSF, which is stringently regulated to prevent the introduction of toxic substances into the CNS. For example, the pH of the CSF is typically maintained at about 7.35, and unlike for the GI tract, wide fluctuations in pH of the CSF are uncommon. In fact, such fluctuations have the potential of being severely harmful to the organs of the CNS, and may further disrupt physiological processes such as signal transmission along/among nerve cells.

12. In general, the CNS is highly sensitive and susceptible to damage from toxic substances - more so than the GI tract. Furthermore, administration of pharmaceutical formulations directly to the CSF is generally avoided for any formulations that contain hazardous or potentially hazardous substances. The threshold for determining whether a substance will be hazardous is lower for the CNS than for the GI tract. Accordingly, drug formulations and related technologies that are suitable for administration to the GI tract are not necessarily suitable for administration to the CNS.

13. In consideration of the above, prior to November 26, 2003 I would not have looked to the Penners patent for guidance in modifying the formulations taught in the Kim patent. The methods for generating a gas that are described in the Penners patent also produce byproducts potentially toxic to the CNS. Had it been suggested to me to incorporate the gas-forming agents described in the Penners patent into pharmaceutical formulations intended to be delivered directly to the CSF, I would have been highly concerned that the gas-forming agents would produce toxic byproducts and result in harmful side effects for a patient receiving treatment with such formulations.

14. Even though the "normal" pH of the CSF is slightly above 7.0, and the CSF may therefore include a nominal concentration of hydroxide ion, the likelihood of adverse reactions caused by introducing additional hydroxide ion into the CSF would have prevented me from looking to the Penners patent for guidance in modifying the formulations taught in the Kim patent.

15. The Examiner has suggested that the amount of hydroxide ion generated by a hydrogen carbonate is too small to adversely affect the pH of the CSF. Even if this were proved to be true (i.e., by experimentation) for specific formulations administered to specific patients, the

general likelihood of adverse reactions would have prevented me from consulting the Penners patent for guidance in modifying the formulations of the Kim patent.

16. The Examiner has suggested that hydroxide ion generated by the decomposition of a hydrogen carbonate could be mitigated by the inclusion, for example, of an acid in the formulation. Even if such a formulation could be developed, balancing the acid-base reactions involved would likely require significant and extensive experimentation in order to ensure that the closely regulated environment of the CSF does not diverge from acceptable physiologically conditions as a result of administration of such a formulation. Because of the delicate nature of the CSF, therefore, the low expectation of success for such a formulation would have prevented me from consulting the Penners patent for guidance in modifying the formulations of the Kim patent.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 5/30/07 Signed: _____
Timothy Maher, Ph.D.